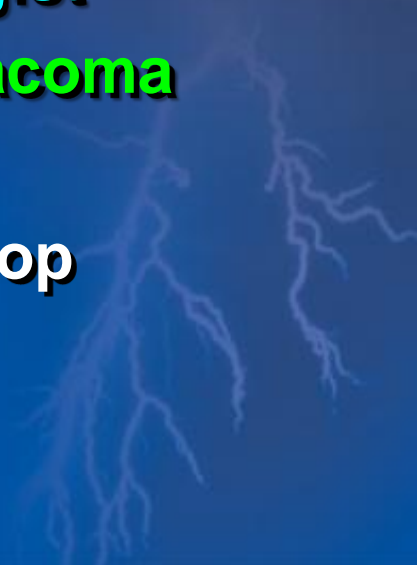


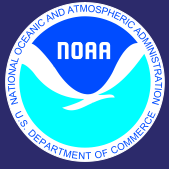
Langley Hill Coastal Radar

Ted Buehner

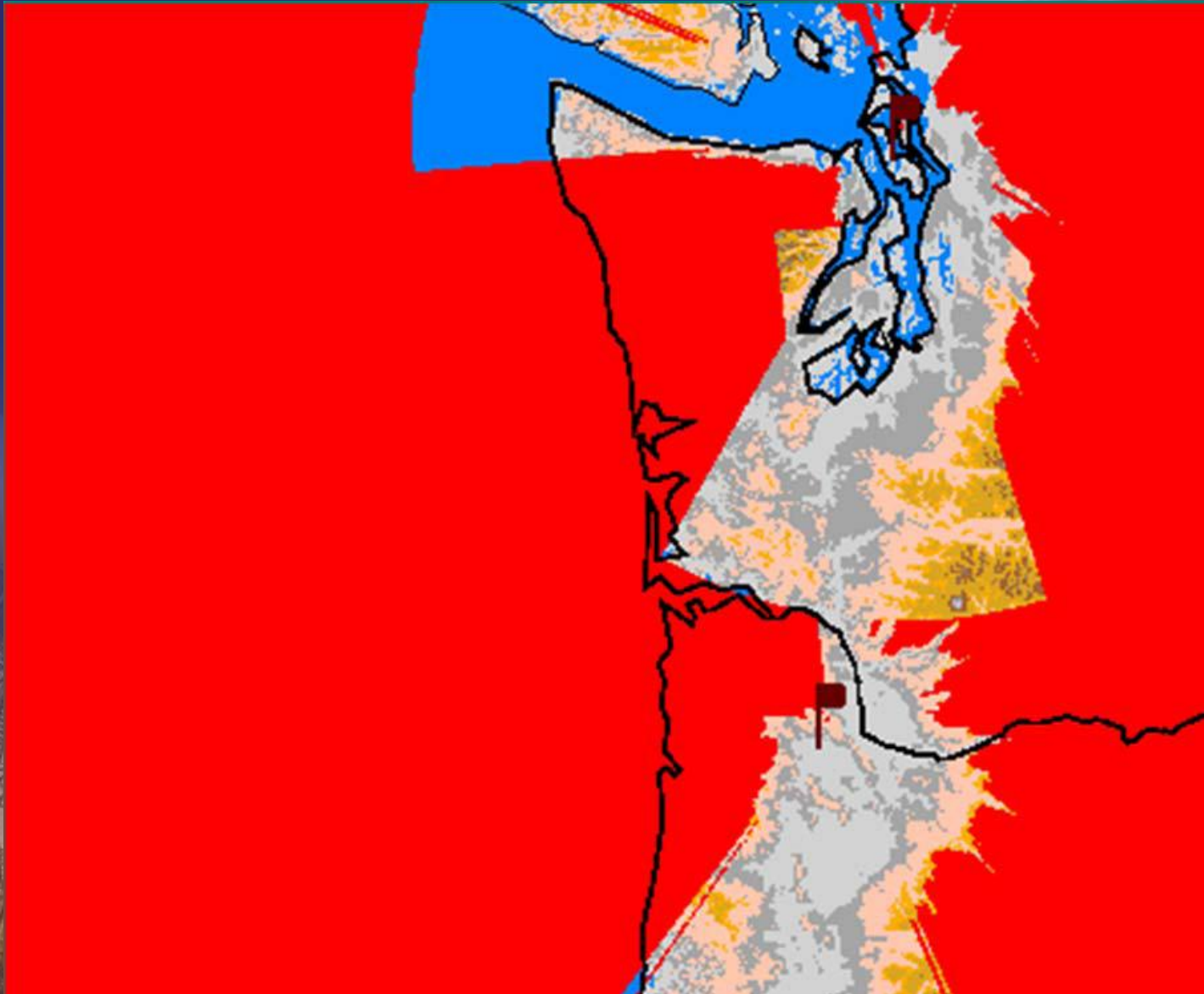
Warning Coordination Meteorologist
National Weather Service - Seattle/Tacoma

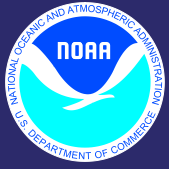
2012 Pacific NW Weather Workshop





The Challenge





Grassroots Effort



- **Cliff Mass**



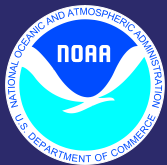
Senator Maria Cantwell



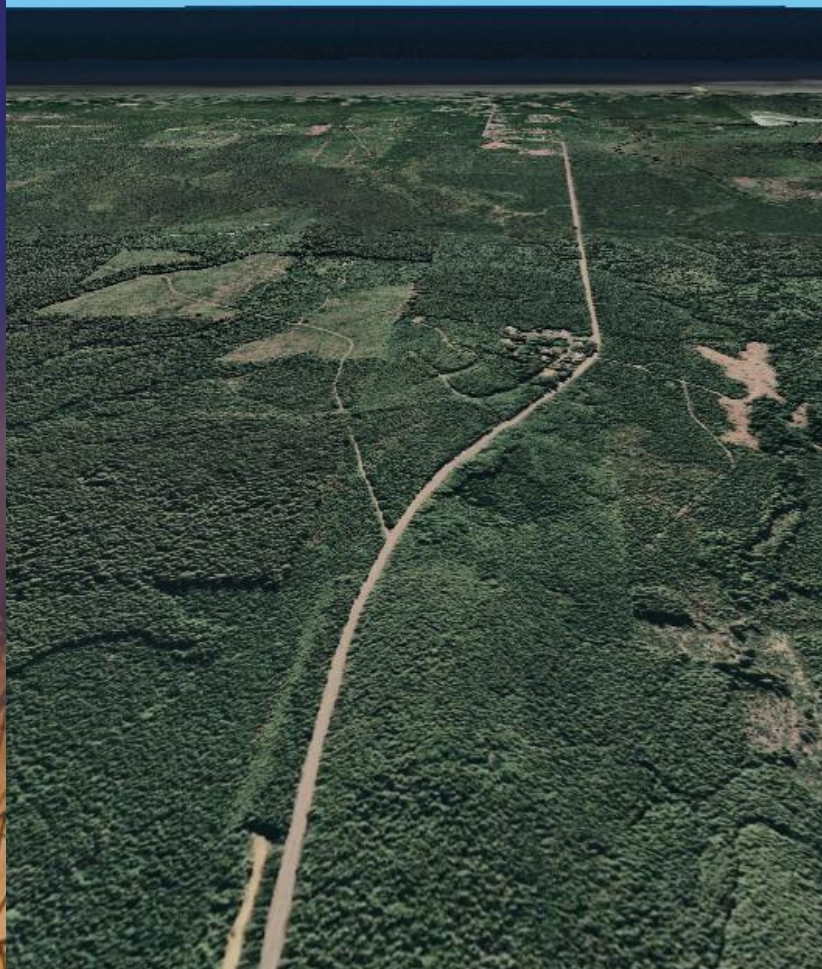
- Appropriated Congressional Funding
- Total \$9 Million



The Senator During a TV Interview at NWS Seattle



Copalis Beach



Before

Image Courtesy of:

Dr. Dieter Zube

Kirkland, WA 98034

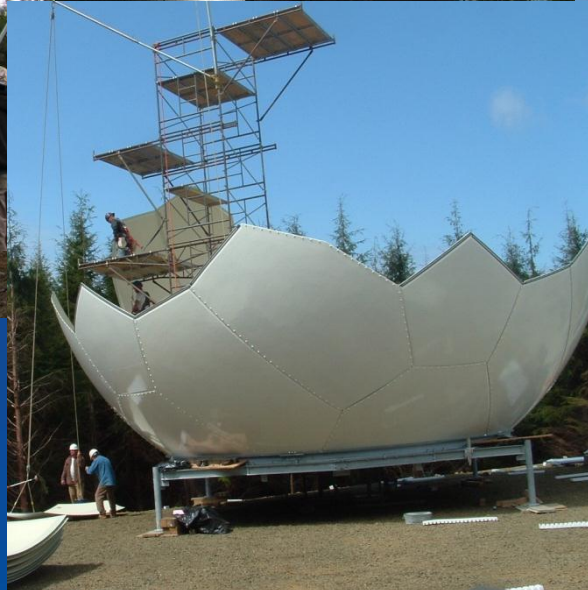
Affiliate Assistant Professor,

University of Washington



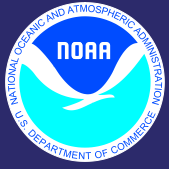
Langley Hill

After



**Construction at
Langley Hill**

Spring/Summer 2011



Langley Hill Coastal Radar



- **Construction**

- *Began in March*
- *Testing began in July*
- *Data flow test in early Sept*

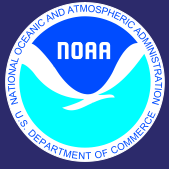
- **Dual-Polarization**

- *Installation Sept 12-23*
- *Testing into the week of Sept 26th*

- **Week of Sept 26th**

- *Became operational*
- *Dedication Ceremony on Sept 29th with Senator Cantwell*





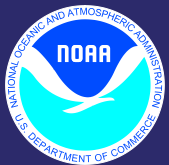
Dedication Ceremony



Cliff Mass and Senator Cantwell

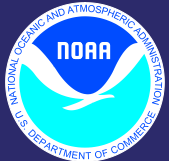


**NWS Director Jack Hayes and
Congressman Norm Dicks**



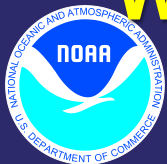
Dedication Ceremony





Dedication Ceremony

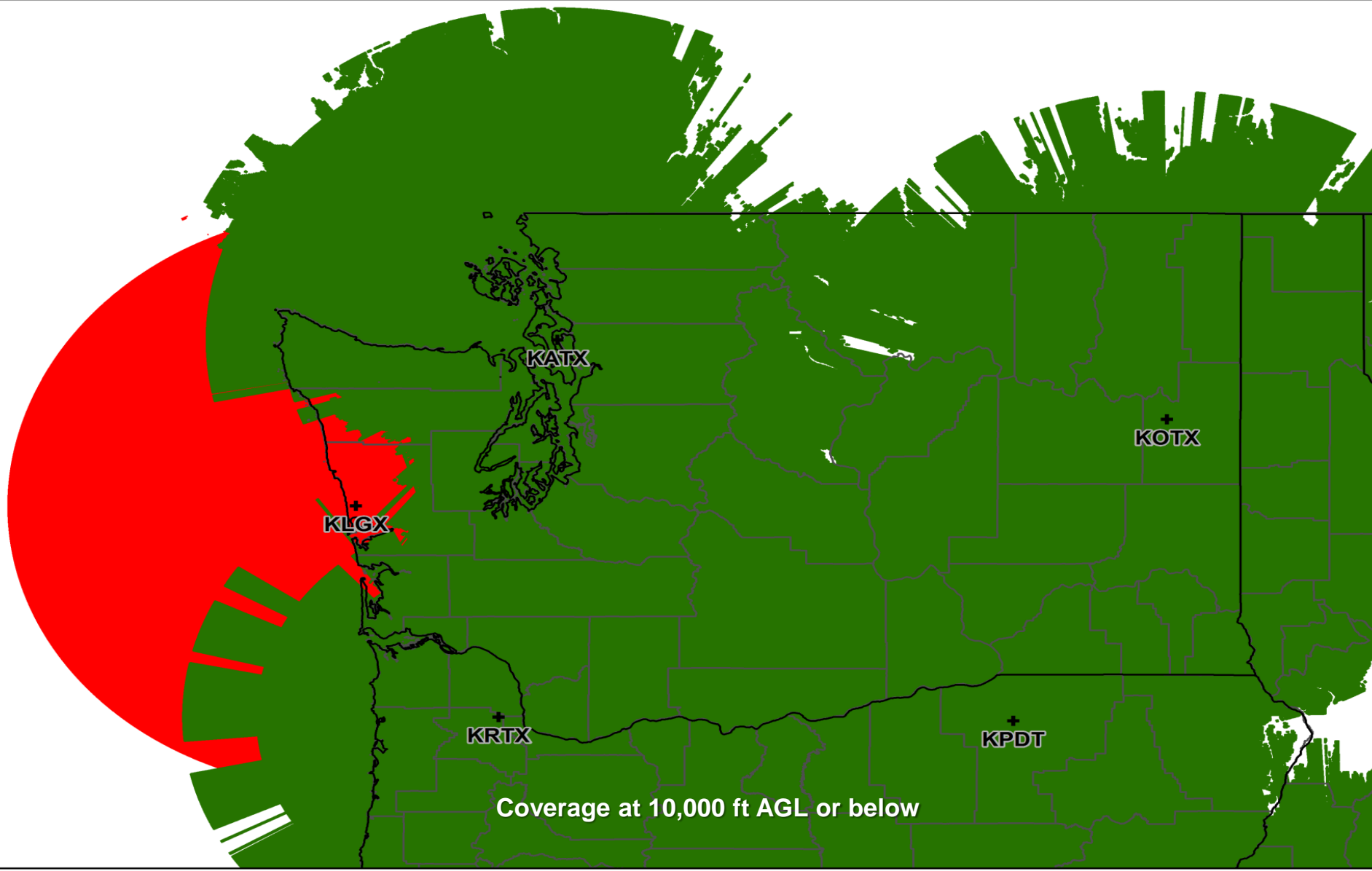


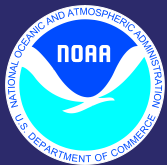


Washington Doppler Weather Radar Coverage

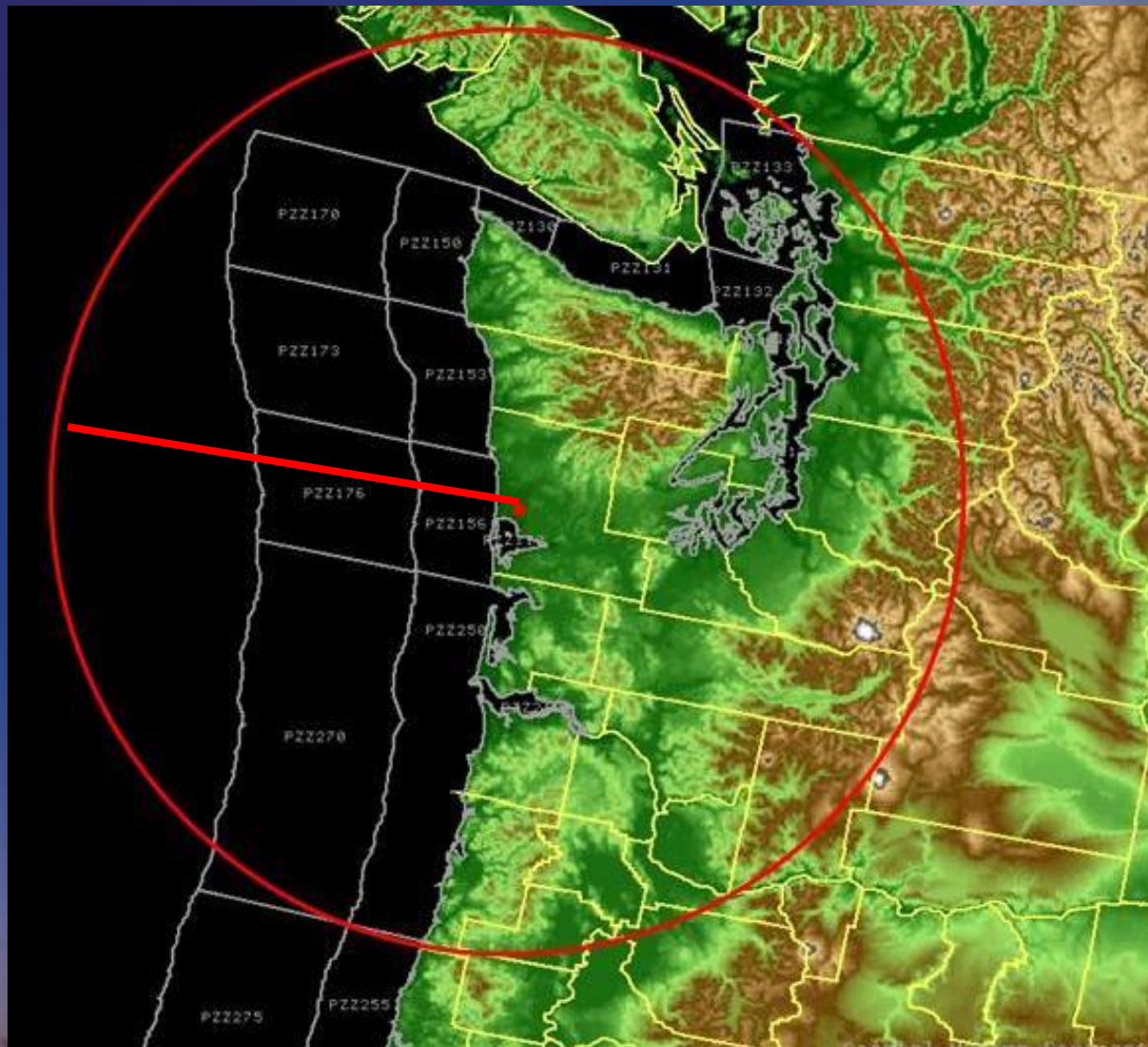


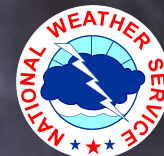
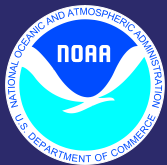
Langley Hill Radar Fills the Coastal Gap





Coastal Radar Coverage





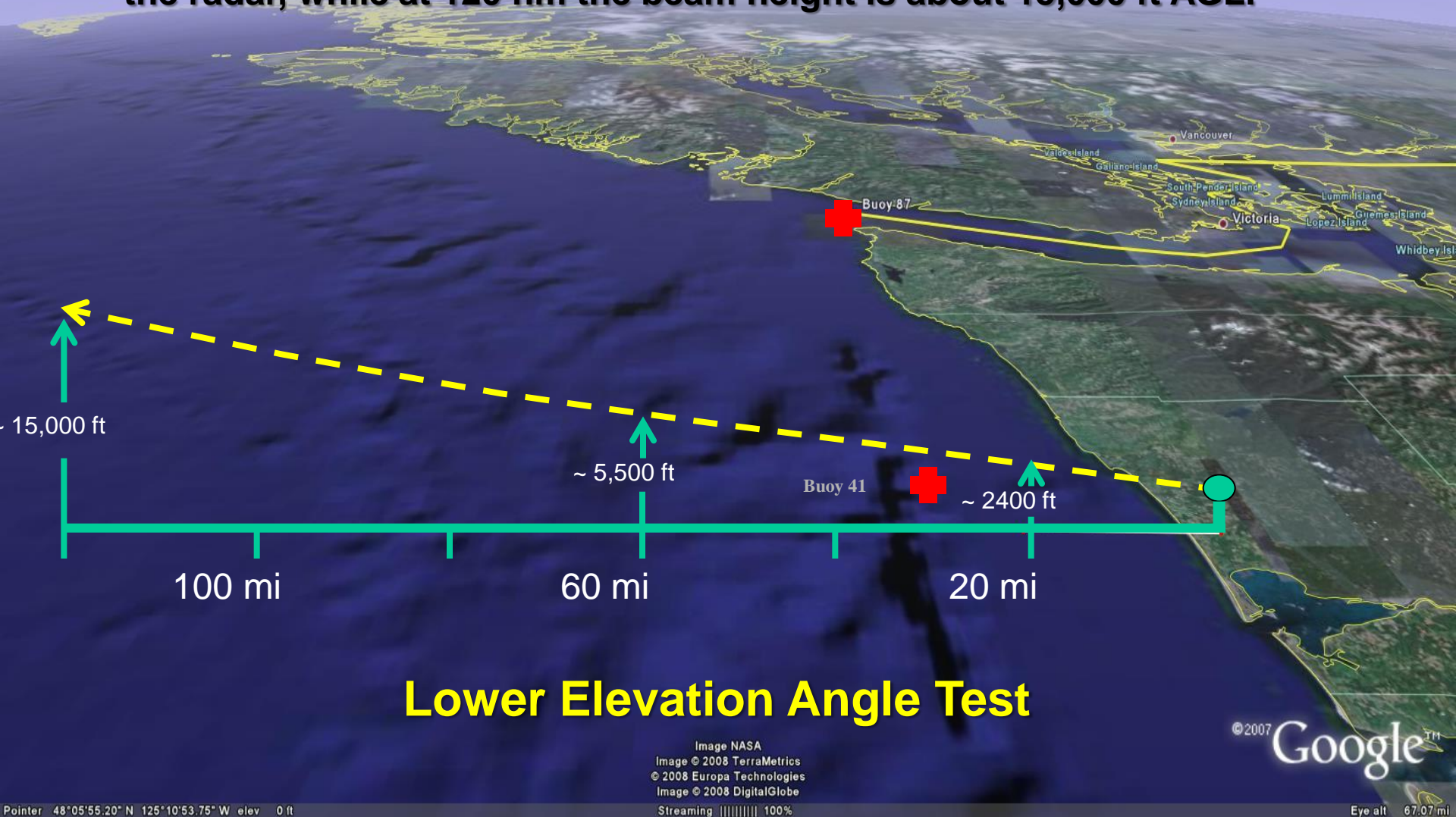
What the Coastal Radar Will Do:

- Improve observation of weather systems
- Fine tune wind and precipitation forecasts (zero to 6 hours lead)
- Improve estimates of rainfall
- Help better identify snow level and its evolution
- Improve forecasts of short-fused severe weather
- Over time, improve understanding of weather along the coast

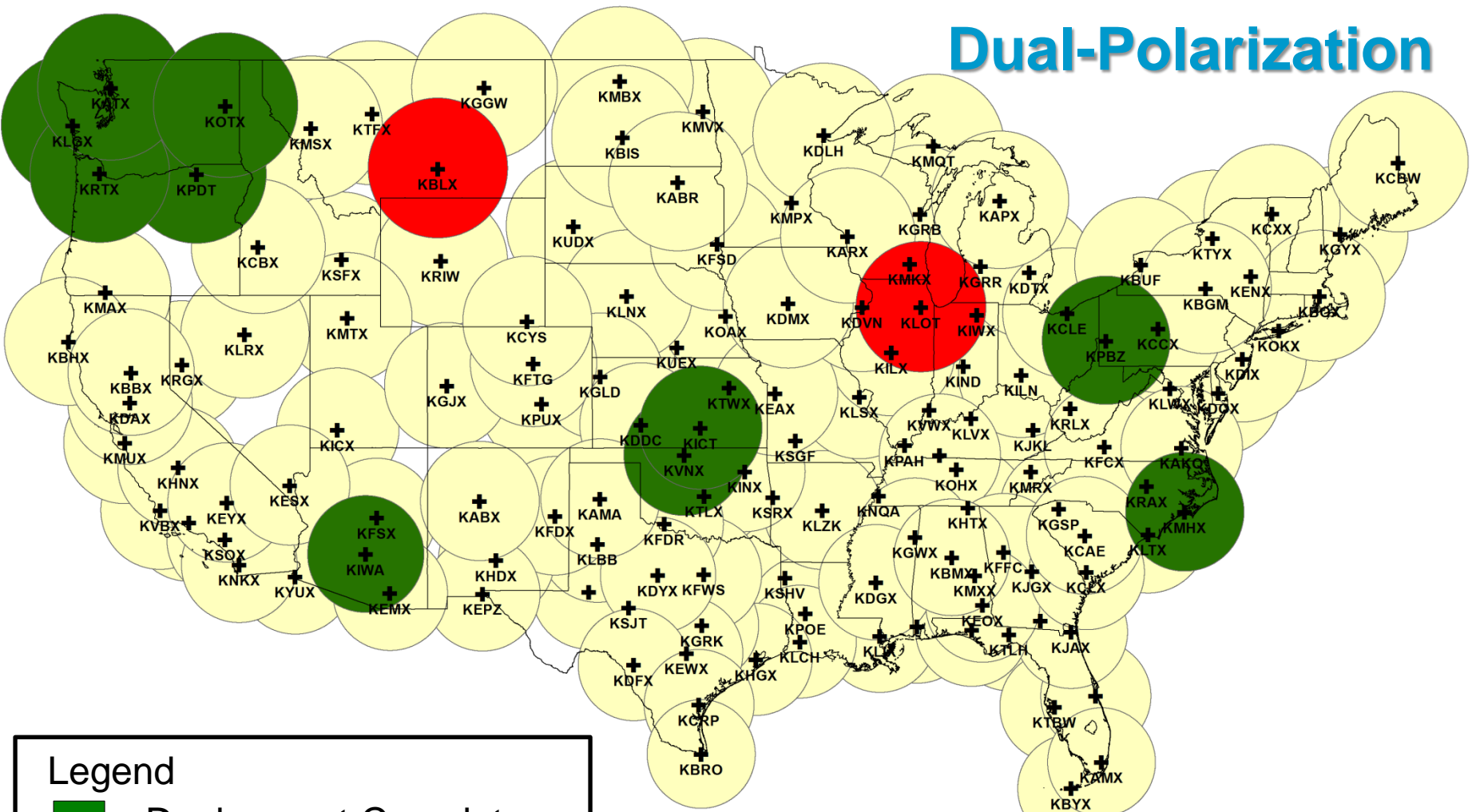
Elevation of the center of the radar beam increases with distance from the radar (tilt + earth curvature).



For example, the height of the lowest elevation slice (0.5 degree) is about 5,500 ft AGL (above ground level) at 60 nm (nautical miles) from the radar, while at 120 nm the beam height is about 15,000 ft AGL.



Dual-Polarization

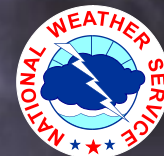
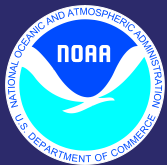


Legend

- Deployment Complete
- Deployment In Progress
- Deployment Scheduled

Washington - First State in the Nation with Dual-Polarization (Oct 2011)



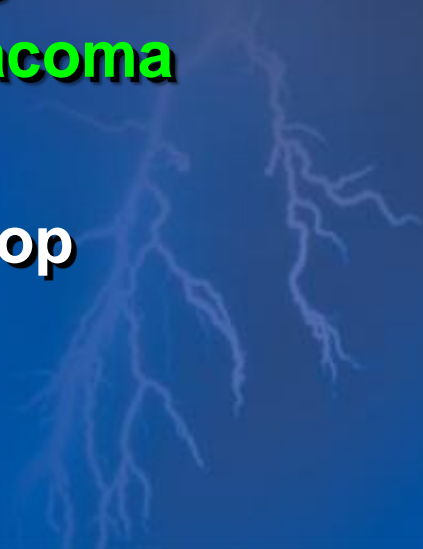


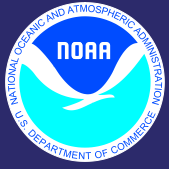
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Ted Buehner

Warning Coordination Meteorologist
National Weather Service - Seattle/Tacoma

2012 Pacific NW Weather Workshop





Questions ??

